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ERICSSON INC.
6300 LEGACY DRIVE
M/S EVR 1-C-11
PLANO, TX 75024

EXAMINER	
GHOWRWAL, OMAR J	

ART UNIT	PAPER NUMBER
2463	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/596,615	BADER, ATTILA	
	Examiner	Art Unit	
	OMAR GHOWRWAL	2463	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 October 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *19,20 and 22-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *19,20 and 22-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application.
6) ☐ Other: _____.

DETAILED ACTION

Response to Remarks

1. This Office action is considered fully responsive to the amendment filed 4/7/09.

2. The objections to the claims have been withdrawn because they have been amended accordingly.

Response to Arguments

3. Applicant's arguments with respect to pending claims 19-20, 22-35 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. **Claims 19-20, 22, 25, 27-28, 31-33** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2003/0227871 A1 to *Hsu et al. ("Hsu")* in view of U.S. Patent No. 6,707,790 B1 to *Wu et al.* ("*Wu*") and in further view of U.S. Publication No. 2003/0133443 A1 to *Klinker et al. ("Klinker")*.

As to **claim 19**, *Hsu* discloses a method, in a packet switched telecommunications network having a plurality of nodes, for providing resource reservation between a reservation initiator and a reservation receiver of an ON-OFF like traffic (figs. 1-2), comprising the steps of:

defining an object including descriptors of the desired Quality of Service (QoS) (para. 0019, para. 0035, i.e. flowspec), packet level traffic parameters characterizing the traffic envelope (para. 0036, Tspec is a parameter that describes data flow), and sub-object of description of source statistics for a call admission control (para. 0024, RSVP QoS request analyzed by admission control, para. 0037, filter spec (part of RSVP reservation request, para. 0035) contains sender IP address and generalized source port, para. 0038-0040, at each intermediate node the RSVP process passes the request to admission control) wherein said source statistics include distribution type and parameters of the distributions associated with said ON-OFF traffic (para. 0037, filter spec, (part of RSVP reservation request, para. 0035) contains sender IP address (i.e. address pertaining to a protocol type, IP, (info about type) and the sender's address is parameters of the distribution of traffic since it is where data is sourced from) and generalized source port, para. 0038-0040, at each intermediate node the RSVP process passes the request to admission control);

initializing reservation for a flow of transmission of the ON-OFF like traffic in the reservation initiator (fig. 2, para. 0045, receiver initiates reservation request);

reserving resources in the nodes along the flow of transmission with the use of said object (fig. 2, para. 0017, RSVP results in resources being reserved in each node along the data path, para. 0046, using RSVP RESV messages);

receiving reservation message in the reservation receiver (fig. 2, para. 0046, RESV received by senders);

and, sending back an acknowledgement to the reservation initiator (fig. 2, para. 0045, requests are acknowledged by confirmation message).

Hsu does not expressly disclose wherein said traffic envelope represents the upper bound of said ON-OFF traffic, wherein said source statistics include distribution type and parameters *representing the behavior* of said ON-OFF traffic.

Wu discloses an upper bound can be derived from the traffic envelope in a QoS system of traffic flows (col. 2, lines 1-15).

Hsu and *Wu* are analogous art because they are from the same field of endeavor regarding data communications.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to incorporate the upper bound of the traffic envelope as taught by Wu into the invention of Hsu. The suggestion/motivation would have been to approximate the distribution of the traffic flow (Wu, col. 2, lines 1-15).

Klinker discloses modifying the source address of traffic controls routing behavior (i.e. a source address, as in the IP address of Hsu, serves as a parameter that represents traffic behavior), para. 0083.

Hsu, Wu, and Klinker are analogous art because they are from the same field of endeavor regarding data communications.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to incorporate the modifying the source address as taught by Klinker into the invention of Hsu and Wu. The suggestion/motivation would

have been to improve application performance as well as cost requirements (Klinker, para. 0083).

As to claim 20, *Hsu, Wu, and Klinker* further discloses the method of claim 19, wherein the call admission control uses the description of source statistics in each node along the flow of transmission (Hsu, para. 0024, RSVP QoS request analyzed by admission control, para. 0037, filter spec (part of RSVP reservation request, para. 0035) contains sender IP address and generalized source port, para. 0038-0040, at each intermediate node the RSVP process passes the request to admission control). In addition, the same suggestion/motivation of claim 19 applies.

As to claim 22, *Hsu, Wu, and Klinker* further discloses the method of claim 19, wherein the distribution type includes a length of the ON and/or OFF periods and wherein the distribution type of the length of the ON and/or OFF periods are exponential (Wu, col. 4, lines 42-54, interval has length of "t" which defines v(t), and v(t) is used to express a truncated exponential distribution). In addition, the suggestion/motivation would be to determine the maximum-entropy distribution for the flow (Wu, col. 4, lines 42-54).

As to claim 25, *Hsu, Wu, and Klinker* further discloses the method of claim 19, wherein said packet switched telecommunications network is an IP based network (Hsu, para. 0018, IP protocol). In addition, the same suggestion/motivation of claim 19 applies.

As to claim 27, *Hsu, Wu, and Klinker* further discloses the method of claim 19, wherein the call admission control uses said description of source statistics in

edge nodes of a resource domain along the flow of transmission (Hsu, fig. 2, para. 0024, RSVP QoS request analyzed by admission control, para. 0037, filter spec (part of RSVP reservation request, para. 0035) contains sender IP address and generalized source port, para. 0038-0040, at each intermediate node (i.e. intermediate nodes adjacent to the sender and receiver are taken as edge nodes, resource domain can be taken to be the entire pathway from sender to receiver) the RSVP process passes the request to admission control). In addition, the same suggestion/motivation of claim 19 applies.

As to **claim 28**, *Hsu* discloses a system for providing resource reservation in a packet switched network including a reservation initiator (RI), a reservation receiver (RR) and a plurality of nodes linked together by transmission channels, in which system the resource reservation of an ON-OFF like traffic is implemented (figs. 1-2) and wherein at least a part of the plurality of nodes comprise:

means for processing descriptors of the desired QoS (fig. 4, showing processors, para. 0019, para. 0035, i.e. flowspec);

means for processing packet level traffic parameters characterizing the traffic envelope (fig. 4, showing processors, para. 0036, Tspec is a parameter that describes data flow);

and, means for processing description of source statistics (fig. 4, showing processors, para. 0024, RSVP QoS request analyzed by admission control, para. 0037, filter spec (part of RSVP reservation request, para. 0035) contains sender IP address and generalized source port, para. 0038-0040, at each intermediate

node the RSVP process passes the request to admission control) wherein said source statistics include distribution type and parameters of the distributions associated with said ON-OFF traffic (para. 0037, filter spec, (part of RSVP reservation request, para. 0035) contains sender IP address (i.e. address pertaining to a protocol type, IP, (info about type) and the sender's address is parameters of the distribution of traffic since it is where data is sourced from) and generalized source port, para. 0038-0040, at each intermediate node the RSVP process passes the request to admission control).

Hsu does not expressly disclose wherein said traffic envelope represents the upper bound of said ON-OFF traffic, parameters *representing the behavior* of said ON-OFF traffic.

Wu discloses an upper bound can be derived from the traffic envelope in a QoS system of traffic flows (col. 2, lines 1-15).

Hsu and *Wu* are analogous art because they are from the same field of endeavor regarding data communications.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to incorporate the upper bound of the traffic envelope as taught by Wu into the invention of Hsu. The suggestion/motivation would have been to approximate the distribution of the traffic flow (Wu, col. 2, lines 1-15).

Klinker discloses modifying the source address of traffic controls routing behavior (i.e. a source address, as in the IP address of Hsu, serves as a parameter that represents traffic behavior), para. 0083.

Hsu, Wu, and Klinker are analogous art because they are from the same field of endeavor regarding data communications.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to incorporate the modifying the source address as taught by Klinker into the invention of Hsu and Wu. The suggestion/motivation would have been to improve application performance as well as cost requirements (Klinker, para. 0083).

As to claim 31, *Hsu, Wu, and Klinker* further discloses the system of claim 28, wherein the nodes are IP routers of an IP network (Hsu, para. 0018, IP protocol, para. 0038-0040, at each intermediate node the RSVP process passes (i.e. routing) the request to admission control). In addition, the same suggestion/motivation of claim 28 applies.

As to **claim 32**, *Hsu* discloses a node in a packet switched telecommunication network wherein said node is associated with a resource reservation of an ON-OFF like traffic in said telecommunication network (figs. 1-2), said node comprising sub-objects of

descriptors of the desired QoS (fig. 4, showing processors and objects that configure descriptors, para. 0019, para. 0035, i.e. flowspec);

packet level traffic parameters characterizing the traffic envelope (fig. 4, showing processors and objects that configure parameters, para. 0036, Tspec is a parameter that describes data flow); and

a description of source statistics (fig. 4, showing processors and objects that configure source statistics, para. 0024, RSVP QoS request analyzed by admission control, para. 0037, filter spec (part of RSVP reservation request, para. 0035) contains sender IP address and generalized source port, para. 0038-0040, at each intermediate node the RSVP process passes the request to admission control) including distribution type and parameters of the distribution associated with said ON-OFF traffic (para. 0037, filter spec, (part of RSVP reservation request, para. 0035) contains sender IP address (i.e. address pertaining to a protocol type, IP, (info about type) and the sender's address is parameters of the distribution of traffic since it is where data is sourced from) and generalized source port, para. 0038-0040, at each intermediate node the RSVP process passes the request to admission control).

Hsu does not expressly disclose the traffic envelope representing the upper bound of said ON-OFF traffic, parameters *representing the behavior* of said ON-OFF traffic.

Wu discloses an upper bound can be derived from the traffic envelope in a QoS system of traffic flows (col. 2, lines 1-15).

Hsu and *Wu* are analogous art because they are from the same field of endeavor regarding data communications.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to incorporate the upper bound of the traffic envelope as taught by Wu into the invention of Hsu. The suggestion/motivation would have been to approximate the distribution of the traffic flow (Wu, col. 2, lines 1-15).

Klinker discloses modifying the source address of traffic controls routing behavior (i.e. a source address, as in the IP address of Hsu, serves as a parameter that represents traffic behavior), para. 0083.

Hsu, Wu, and Klinker are analogous art because they are from the same field of endeavor regarding data communications.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to incorporate the modifying the source address as taught by Klinker into the invention of Hsu and Wu. The suggestion/motivation would have been to improve application performance as well as cost requirements (Klinker, para. 0083).

As to claim 33, *Hsu, Wu, and Klinker* further disclose the node of Claim 32 wherein the distribution type includes a length of the ON and/or OFF periods and wherein the distribution type of the length of said ON and/or OFF periods is exponential (Wu, col. 4, lines 42-54, interval has length of "t" which defines v(t), and v(t) is used to express a truncated exponential distribution). In addition, the suggestion/motivation would be to determine the maximum-entropy distribution for the flow (Wu, col. 4, lines 42-54).

6. **Claims 23-24, 34-35** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2003/0227871 A1 to Hsu et al. ("Hsu") in view of U.S. Patent No. 6,707,790 B1 to Wu et al. ("Wu") and U.S. Publication No. 2003/0133443 A1 to *Klinker et al. ("Klinker")* and in further view of U.S. Publication No. 2004/0184477 A1 to Tavli et al. ("Tavli").

As to claim 23, *Hsu, Wu, and Klinker* further disclose a mean rate (Wu, col. 4, lines 1-9, mean rate).

Hsu, Wu, and Klinker does not expressly disclose the method of claim 19, wherein the parameter includes a length of the ON periods and wherein the parameter of the length of the ON periods is the mean time of ON periods.

Tavli discloses the average data burst duration, T_DB, which is the average length of a data burst (i.e., average duration of a speech burst, m_s), T_S, the average silence time between data bursts (i.e., average gap duration, m_g), (para. 0068).

Hsu, Wu, Klinker and Tavli are analogous art because they are from the same field of endeavor regarding data communications.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to incorporate T_DB and T_S as taught by Tavli into the invention of *Hsu, Wu, and Klinker*. The suggestion/motivation would have been to provide an energy-efficient technique for selective listening on a network (Tavli, para. 0010).

As to claim 24, *Hsu, Wu, and Klinker* further disclose a mean rate (Wu, col. 4, lines 1-9, mean rate).

Hsu, Wu, and Klinker does not expressly disclose the method of claim 19, wherein the parameter includes a length of the OFF periods and wherein the parameter of the length of the OFF periods is the mean time of ON periods.

Tavli discloses the average data burst duration, T_DB, which is the average length of a data burst (i.e., average duration of a speech burst, m_s),

T_S, the average silence time between data bursts (i.e., average gap duration, m_g), (para. 0068).

Hsu, Wu, Klinker and Tavli are analogous art because they are from the same field of endeavor regarding data communications.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to incorporate T_DB and T_S as taught by Tavli into the invention of *Hsu, Wu, and Klinker*. The suggestion/motivation would have been to provide an energy-efficient technique for selective listening on a network (Tavli, para. 0010).

As to claim 34, *Hsu, Wu, and Klinker* further disclose a mean rate (Wu, col. 4, lines 1-9, mean rate).

Hsu, Wu, and Klinker does not expressly disclose the node of claim 32, wherein the parameters include a length of the ON periods and wherein the parameters of the length of the ON periods is the mean time of ON periods.

Tavli discloses the average data burst duration, T_DB, which is the average length of a data burst (i.e., average duration of a speech burst, m_s), T_S, the average silence time between data bursts (i.e., average gap duration, m_g), (para. 0068).

Hsu, Wu, Klinker and Tavli are analogous art because they are from the same field of endeavor regarding data communications.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to incorporate T_DB and T_S as taught by Tavli into the invention of Hsu, Wu, and Klinker. The suggestion/motivation would have been

to provide an energy-efficient technique for selective listening on a network (Tavli, para. 0010).

As to claim 35, *Hsu, Wu, and Klinker* further disclose a mean rate (Wu, col. 4, lines 1-9, mean rate).

Hsu and Wu does not expressly disclose the method of claim 32, wherein the parameters include a length of the OFF periods and wherein the parameter of the length of the OFF periods is the mean time of ON periods.

Tavli discloses the average data burst duration, T_DB, which is the average length of a data burst (i.e., average duration of a speech burst, m_s), T_S, the average silence time between data bursts (i.e., average gap duration, m_g), (para. 0068).

Hsu, Wu, Klinker and Tavli are analogous art because they are from the same field of endeavor regarding data communications.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to incorporate T_DB and T_S as taught by Tavli into the invention of *Hsu, Wu, and Klinker*. The suggestion/motivation would have been to provide an energy-efficient technique for selective listening on a network (Tavli, para. 0010).

7. **Claim 26** is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2003/0227871 A1 to Hsu et al. ("Hsu") in view of U.S. Patent No. 6,707,790 B1 to Wu et al. ("Wu") and U.S. Publication No. 2003/0133443 A1 to *Klinker et al. ("Klinker")* and in further view of U.S. Publication No. 2002/0034166 A1 to Barany et al. ("Barany").

As to claim 26, *Hsu, Wu, and Klinker* further discloses the method of claim 19, wherein nodes are routers (Hsu, fig. 2, para. 0038-0040, at each intermediate node the RSVP process passes the request to admission control).

Hsu, Wu, and Klinker does not expressly disclose of a Terrestrial Radio Access Network of a Universal Mobile Telecommunications Network (UTRAN).

Barany discloses a radio access network is UTRAN and packet-switched (i.e. routed) call control signals such as RSVP are used (para. 0051).

Hsu, Wu, Klinker and Barany are analogous art because they are from the same field of endeavor regarding data communications.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to incorporate the UTRAN using RSVP as taught by Barany into the invention of *Hsu, Wu, and Klinker*. The suggestion/motivation would have been to establish a packet-switched call in a wireless network by sending an identifier to identify the call as a packet-switched call and communicating control signaling in traffic channels of the wireless network (Barany, para. 0010).

8. **Claim 29** is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2003/0227871 A1 to Hsu et al. ("Hsu") in view of U.S. Patent No. 6,707,790 B1 to Wu et al. ("Wu") and U.S. Publication No. 2003/0133443 A1 to *Klinker et al. ("Klinker")* and in further view of U.S. Publication No. 2002/0160785 A1 to Ovesjo et al. ("Ovesjo").

As to claim 29, *Hsu, Wu, and Klinker* does not expressly disclose the system of claim 28, wherein the reservation initiator (RI) is a base station

controller and the reservation receiver (RR) is a radio network controller of the packet switched network.

Ovesjo further discloses the BSC sending a handover required message to the core network (BSC is the initiator), which then sends a relocation request message to t-RNC, which then reserves radio resources (RNC is reservation receiver) (fig. 3, items 3-2 to 3-5, para. 0038-0039).

Hsu, Wu, Klinker and Ovesjo are analogous art because they are from the same field of endeavor regarding data communications.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to incorporate the BSC sending a handover required message to the core network, which then sends a relocation request message to t-RNC, which then reserves radio resources as taught by Ovesjo into the invention of *Hsu, Wu, and Klinker*. The suggestion/motivation would have been to have an inter-RAT handover procedure triggered by the BSC (Ovesjo, para. 0038).

9. **Claim 30** is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2003/0227871 A1 to Hsu et al. ("Hsu") in view of U.S. Patent No. 6,707,790 B1 to Wu et al. ("Wu") and U.S. Publication No. 2003/0133443 A1 to *Klinker et al. ("Klinker")* and in further view of WO 00/62572 to Willars.

As to claim 30, *Hsu, Wu, and Klinker* does not expressly disclose the system of claim 28, wherein the reservation initiator (RI) is a radio network

controller and the reservation receiver (RR) is a base station controller of the packet switched network.

Willars discloses RNC requests a DCH set up, and BSC receives this request (fig. 5A).

Hsu, Wu, Klinker and Willars are analogous art because they are from the same field of endeavor regarding data communications.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to incorporate the RNC requests a DCH set up, and BSC receives this request as taught by Willars into the invention of *Hsu, Wu, and Klinker*. The suggestion/motivation would have been to for the base station controller to reserve and set up the necessary dedicated channel processing resources at the base station (Willars, page 10, lines 12-13).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OMAR GHOWRWAL whose telephone number is (571)270-5691. The examiner can normally be reached on Monday-Thursday, 8:00am-5:00pm est..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derrick Ferris can be reached on (571)272-3123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/O. G./
Examiner, Art Unit 2463
/Derrick W Ferris/
Supervisory Patent Examiner, Art Unit 2463